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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,252	03/19/2001	Gary B. Gordon	10010189-1	7805

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EXAMINER	
ABDULSELAM, ABBAS I	

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/812,252	Applicant(s) GORDON ET AL.	
	Examiner Abbas I Abdulselam	Art Unit 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari et al. (USPN 6392636) in view of Kuroda (USPN 5376947).

Regarding claims 1 and 19, Ferrari teaches a plurality N of capacitance sensing elements that are arranged to cooperate with a fingertip to produce an output signal that controls the movement of a cursor/pointer across a display screen (col. 5, lines 50-54). Ferrari teaches a thin dielectric layer (25) covering capacitive plates (23, 24) and the upper horizontal surface (125) of layer (25) providing an active array surface for physical contact by skin surface (18) of a finger (col. 7, lines 45-51. and Fig. 2). Furthermore, Ferrari teaches a processing unit (160) with respect to all cell outputs (17) including an electric picture signal that appears as a bright blob (170) positioned on the dark background. see col. 9, lines 14-19. See col. 8, lines 38-42, col. 9, lines 14-18 and Fig 4. Moreover, Ferrari teaches digitizing a fingerprint pattern and discloses that a user achieves a desired cursor pointer movement by sidewise rolling movement of fingertip (18)

represented by arrow (304) and /or by lengthwise end to end pitching of fingertip (18) represented by arrows (305). See col. 7, lines 8-11 and col. 10, lines 51-54. However, Ferrari does not disclose a controller configured to generate movement data based on a comparison of successively generated sets of values. Kuroda on the other hand teaches a calculation operation at moving-amount calculating unit (S6) which is comparing/calculating circuit (50) comparing the present detection data outputted from the touch detecting circuit (31) with previous detection data stored in the first memory (41) in order that the input position movement is produced as movement data. See Fig. 3 (S6), Fig. 2 and Fig. 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferrari's input system to include Kuroda's comparing/calculating circuit (50). One would have been motivated in view of the suggestion in Kuroda that the comparing/calculating circuit (50) equivalently provides the desired comparison of successively generated sets of values. The use of comparing/calculating circuit helps function a touch-type input terminal apparatus as taught by Kuroda.

Regarding claim 19, in addition to what has been discussed above, Kuroda discloses a data adjusting circuit (52) to which previous movement data delta .x1, and delta .y1 are outputted (step S65) and also alternatively movement data delta.x2, delta.y2 are outputted (S67) so that adjustment of movement data takes place based on area data. See Fig. 3 and Col. 5, lines 17-24. It would have been obvious that the data adjusting circuit (52) is equivalent to the desired correlation of versions of images.

Regarding claims 2-4 and 20, Ferrari teaches multiple N of capacitance sensing cells. See col. 5, lines 50-54.

Regarding claims 5, 9, 11, 21, 25 and 27, Ferrari teaches the use of integrated capacitive tactile imaging sensor which comprises a multi-layer construction including a thin conductive rubber layer and a top protective layer. See col. 2, lines 5-16.

Regarding claims 6-7 and 22 –23, Ferrari teaches the use a thin dielectric layer (25) covering capacitive plates (23, 24). See Fig 2.

Regarding claims 8 and 24, Ferrari teaches the use of a thin (0.1 micrometer) silicon nitride insulator overlaying the capacitor plate. See col. 2, lines 41-50.

Regarding claims 10 and 26, Ferrari teaches fingerprint-scanning arrays using polysilicon TFT's of polymer and glass substrates. See col. 2, lines 19-31.

Regarding claims 12-13, Ferrari teaches the use of reference voltage, Vr at ground potential (100) along with horizontal surface (125) and a dielectric layer (25). See col. 7, lines 19-29.

Regarding claim 14, Ferrari teaches scanning stages (5, 6) comprising shift registers, or decoders that operate to integrate outputs (17) of cells (2) in time sequence.

Regarding claims 15-16 and 28-29, Ferrari teaches the arrangement of 25 sensor cells in a row/column array. See Fig 8.

Regarding claims 17-18, and 30-31, Ferrari teaches cursor/pointer movement as the fingertip is pitched end to end on the upper surface of the array. In addition, Ferrari discloses a capacitive–type fingerprint sensor having a sensor pad with an array of row/column sensing elements with a specific pitch value. See col. 3, lines 37-47 and col. 5, lines 1-10.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulselam** whose telephone number is **(703) 305-8591.** The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709.**

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulselam

Examiner

Art Unit 2674

November 29, 2003

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600